

JUN 8 1959

Washington, June 3, 1959

Maps Indicate Screwworm May Still Exist in Southeast:

Screwworm flies captured in traps in Florida this spring indicate a limited native screwworm population may still exist in the Southeast, the U. S. Department of Agriculture reported today.

Several hundred traps currently are being used by the Department's Agricultural Research Service and the Florida Livestock Board to double check the effectiveness of the cooperative effort to eradicate this livestock pest from southeastern United States.

The last known animal wound infestation that could be attributed to screwworms occurred on Feb. 19, 1959. Since then, however, fly traps in Florida have picked up three flies that are suspected of being native screwworm flies. Since the traps lure both native and the sterile flies being used in the eradication effort, it is difficult positively to identify trapped specimens as to their origin.

At this advanced stage of the eradication campaign, final success depends more than ever on how thoroughly livestock producers of the Southeast search for and report infestations, according to Florida eradication leaders Dr. D. L. Williams of USDA and Dr. M. E. Meadows of the Florida Livestock Board. It is necessary for these farmers and ranchers to report suspected cases, and to furnish specimens of larvae and eggs taken from wounds to the eradication headquarters in Sebring, Fla. Although 40 to 50 samples of larvae and eggs are received weekly for examination at the Sebring laboratory, this number is considered insufficient for a good sampling of the area.

The eradication effort is unique in the history of cooperative pest control. Millions of screwworm flies are reared in a laboratory at Sebring and then exposed to radioactive cobalt which makes the flies sterile. Sterile male flies, released over the infested area, mate with native female flies which in turn produce only infertile eggs. Thus, the species is eventually wiped out. General release of sterile flies was begun in July 1958.

Washington, June 8, 1952

TO: DIRECTOR, FBI (100-100000)

FROM: SAC, NEW YORK (100-100000) (P)

SUBJECT: [Illegible]

Re New York letter to Bureau dated 5/22/52, captioned as above. The Bureau is requested to advise the Director of the results of the investigation conducted by the New York Office.

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JUN 26 1959

Washington, June 22, 1959

New Screwworm Infestation Discovered in Florida:

Screwworms -- target of a Federal-State eradication effort -- were discovered infesting livestock June 17 near Lake Placid in Highlands County, Florida, the U.S. Department of Agriculture and the Florida Livestock Board announced today.

This is the first screwworm case reported in the southeastern U.S. eradication area since Feb. 19. However, flies trapped in other areas of Florida following this date were suspected of being screwworm flies.

Release of sterile screwworm flies -- key to the eradication effort -- was greatly increased on the farm where the infestation occurred, and in adjacent areas, to prevent further infestations. Livestock on the farm was sprayed with an insecticide. Surveys have been intensified to determine if further infestations exist.

Eradication program leaders emphasized that occurrence of this case points up the necessity for livestock producers in the Southeast to be on the alert for any suspected infestations and to report such cases immediately. Success in eliminating the screwworm from the Southeast depends upon this close cooperation by livestock producers. Samples of eggs or larvae must be positively identified by specialists.

The present effort, including the release of 50 million sterile flies weekly, will continue until it has been determined that the screwworm has been eliminated from the Southeast.

The flies are reared in artificial media in a laboratory at Sebring, Fla. They are then made sterile by exposure to radioactive cobalt. The sterile flies are released in large numbers over the eradication area. Sterile male flies mate with native females flies, which then produce only infertile eggs. Thus, the species is eventually wiped out. General release of sterile flies was begun in July 1958.

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July 1958

UNITED STATES DEPARTMENT OF AGRICULTURE

Washington, August 20, 1959

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1 Screwworm Infestations Found in Mississippi and Louisiana, USDA Reports:

Two herds containing screwworm-infested cattle have been found on both sides of the Mississippi River -- one in the vicinity of Vicksburg, Miss., and the other near Tallulah, La., the U. S. Department of Agriculture reports.

Five animals were found to be affected. Screwworm specimens taken from infested wounds were positively identified this past week-end.

The infested herd in Mississippi was immediately put under quarantine and sprayed with a pesticide to prevent spread of the costly livestock pest, target of large-scale eradication campaigns in the southeastern United States. Additional State and Federal workers have been assigned to the area to determine whether other nearby herds are affected. Several localized infestations found last fall in the same region in Mississippi were held in check by similar procedures. The Tallulah infestation was the first in Louisiana livestock this year, and although this infestation lies outside the southeastern eradication area, the infested herd has been treated with a pesticide.

Persons in the Southeast engaged in handling livestock as well as all livestock owners on farms are urged to be alert for the appearance of screwworms in their animals. Any suspicious cases should be reported immediately to the nearest county agent or veterinarian in order that specimens may be obtained for identification purposes.

The Vicksburg find was the first positive identification of screwworms in the entire five-state southeastern eradication area this year outside of Florida. Only one infested animal has been found in Florida -- on June 17 -- since late February, 1959.

In 1957, before the eradication campaign got underway, an estimated 30,000 to 40,000 cases monthly were found in Florida alone during the peak of the warm

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weather season.

The eradication campaign, a joint effort of Florida and USDA's Agricultural Research Service, with other Southeastern States cooperating, has been in progress for 13 months. It involves mass rearing and dispersal from airplanes of billions of screwworm flies, made sterile by exposure to gamma rays of cobalt-60. Eggs from native female flies that mate with the sterile males are infertile. Continued release of sterile flies over an infested region reduces the native screwworm population until eradication results.

Earlier this month, screwworms were found in a truckload of cattle at Memphis, Tenn. The animals were in transit from Texas to Montgomery, Ala. Another infestation among swine in transit was discovered July 26 at the Delta, Miss., checking station.

DEC 11 1959

~~UNITED STATES DEPARTMENT OF AGRICULTURE~~

Washington, October 27, 1959

USDA Reports on Screwworm Survey:

An all-out eradication program against the screwworm in the southwestern United States and adjacent Mexico does not appear feasible at the present time, and the problem requires further research and field trial, the U.S. Department of Agriculture said today.

Lack of natural barriers against the fly in the vast infested areas of the Southwest and Mexico is a key factor in this decision. This was confirmed in a survey recently conducted cooperatively by personnel of USDA's Agricultural Research Service, southwestern States, and the Republic of Mexico. The cooperation between the United States and Mexico was agreed to by President Eisenhower and President Adolfo Lopez Mateos at Acapulco, Mexico, last February.

Any joint program by the United States and Mexico should be confined to research and field trial on sterile male and other techniques that might be used to fight the screwworm, officials believe.

Secretary of Agriculture Ezra Taft Benson said, "With more knowledge and improvement of techniques or by discovering new approaches, a feasible program for eradication of the screwworm from some areas might be developed, but an experimental program combining research and field trial would be quite costly."

The program method used successfully in the Southeast is the release of vast numbers of sexually sterile screwworm flies to mate with native screwworm flies and produce eggs that do not hatch. The flies are reared in a laboratory and sterilized by exposure to radioactive cobalt.

The recent survey and evaluation of findings brought out the following information bearing upon the feasibility of the program in the Southwest:

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Large size of the infested area. The average overwintering area of the screwworm includes about 70,000 square miles of Texas, 40,000 square miles in California, 34,000 square miles in Arizona, and 1,000 square miles in New Mexico, plus several hundred thousand square miles in adjacent Mexico. By contrast, the average overwintering area in southeastern United States is less than 50,000 square miles.

Lack of natural barriers to screwworm spread. Screwworms were reported at elevations of 8,000 feet in Mexico and 6,000 feet in the United States -- suggesting that existing mountain ranges do not provide natural barriers to the movement of this pest. Numerous valleys through the mountain ranges form corridors that facilitate migration. This contrasts with the situation in the Southeast where the ocean and gulf are extensive fly-free boundaries of the eradication area, providing an effective natural barrier against reinfestation.

Long-range aspects of a screwworm program. Efforts to protect the United States and adjacent areas of Mexico from infestation from farther south would necessitate establishing some type of permanent buffer zone. On the basis of present knowledge, it appears that sterile flies would have to be continually reared and released in this zone along with appropriate inspections and control of livestock movements.

Screwworm infestations. The survey data showed that the majority of screwworm cases in the Southwest and Mexico occurred in navels of newborn animals and in man-made wounds, such as castration, dehorning, shear cuts, branding, and ear-marking. Excessively dry and excessively wet climates limit buildup of infestations.

The screwworm fly, Callitroga hominivorax (Cqrl.), a little larger than the house fly, attacks only the flesh of living, warm-blooded animals. The fly lays eggs in masses around the edges of wounds. The maggots or screwworms, hatching from the eggs, bury themselves headfirst in the wound, gouging out pockets by their feeding. An untreated wound may kill an animal in 10 days -- hence, the necessity of constant inspection of animals in the infested area to detect and treat all infestations. This close supervision of livestock is expensive in range areas. In spring and summer, the fly extends its range into large areas of southwestern United States, and through livestock shipments, as far north as the Dakotas. However, the pest overwinters only in relatively warm areas.

Status of work in southeastern States. Due to satisfactory progress in eradicating the screwworm in the Southeast, Nov. 14 has been set as the date for closing the facilities located at Sebring, Fla., for production of flies used in the program. Dispersal of sterile flies will be discontinued by that time, also. The building and equipment will be maintained on a standby basis but all flies used as breeding stock will be destroyed. If it is necessary to resume operations in the Southeast, stock for a new fly colony can be obtained from a USDA research laboratory at Kerrville, Texas.

HIGH LIGHTS

Screwworm Survey of the Southwestern United States and Northeastern Mexico

A screwworm survey has been made in the southwestern United States and northeastern Mexico to determine the incidence, relative abundance, and overwintering areas, and to obtain other pertinent information relative to the screwworm problem.

The survey revealed that screwworms remain active throughout the winter months in parts of Texas, Arizona, and California, and in all of northeastern Mexico. (See map Figure 2.) The total area where screwworms overwinter in the southwestern United States approximates 150,000 square miles, which includes 70,000 square miles in Texas, 46,000 in California, 1,000 in New Mexico, and 34,000 in Arizona. The overwintering area in adjacent Mexico totals several hundred thousand square miles.

Losses due to screwworms in these areas are estimated to be somewhat less per unit of area than they were in the southeastern States.

No natural barrier was found in Mexico that would prevent the northward migration of flies and subsequent reinfestation of uninfested areas. An eradication program, therefore, would not be feasible without a continuing program to prevent reinfestation. Although there has been considerable speculation relative to the effectiveness of an artificial barrier, i.e., the continuing distribution of sterile male flies in a protective zone, this method of preventing fly migration has never been tried. An artificial barrier would also include the inspection and treatment of livestock moving from infested areas into the treated areas or other screwworm-free areas.

The estimated cost of an eradication program is \$100.00 per square mile per year, plus the initial cost of buildings, equipment, and other facilities which will approximate \$2.1 million per 80,000 square mile unit.

The report shows that in the absence of a natural barrier, the success of any eradication program using the sterile male technique would be dependent upon developing means to establish and maintain an artificial buffer zone of sufficient magnitude to prevent reinfestation of any area that might be freed of screwworms. If such means were developed, the buffer zone would have to be maintained perpetually at great cost. Accordingly, in view of the extensive area involved, the difference between this area and southeastern United States, and the lack of research information, the next joint program by the United States and Mexico should be directed to research and field trial on sterile male and other techniques that might be used to eradicate or control the screwworm menace. Such an effort would cost in the millions annually but it would offer the best hope of ultimate success.

Washington, December 11, 1959

Amended Screwworm Regulations Affect Livestock Movement:

Shipping restrictions on movement of farm animals from Florida into other States, imposed because of the screwworm, have been lifted by the U. S. Department of Agriculture as a result of progress in the Southeast in eradicating this destructive parasite of livestock.

USDA also announced that shipping requirements for livestock moving from California, New Mexico, and Arizona into the Southeast eradication area will now apply on a year 'round basis, rather than on a 7-month basis, because a recent survey has confirmed that the screwworm overwinters in these three Western States.

Year 'round regulation will continue to apply to livestock movements from Texas and Louisiana into the Southeast eradication area, which includes Florida, Georgia, Alabama, South Carolina, and Mississippi.

Full-scale eradication efforts that involved the release of millions of sexually sterile screwworm flies over the Southeast were begun in July 1958. Regulations regarding livestock movement first became effective in September 1958, to prevent interstate spread of the pest and to facilitate the Federal-States program then underway in the Southeast to eradicate the parasite.

The regulations specify that no livestock infested with screwworms shall be moved interstate for any purpose. Livestock owners who intend to ship animals into the eradication area should contact their State or Federal veterinarian for details concerning requirements for shipment.

No cases of screwworm infestation have been reported in Florida since mid-June 1959. Prior to the beginning of the cooperative eradication program in July 1958, as many as 40,000 cases a month were reported in Florida, South Carolina, Georgia, and Alabama. Screwworm production facilities at Sebring, Fla., which provided an operations base for the eradication effort, ceased operation in mid-November and are now on a standby basis. However, program officials urge livestock owners to continue to submit suspected larval specimens for identification at the Survey Data Center at Sebring.

Details on the amendments to regulations restricting the interstate movement of livestock from screwworm-infested areas appeared in the Dec. 9 Federal Register.

UNITED STATES DEPARTMENT OF AGRICULTURE

Washington, December 11, 1958

Re: Interagency Liaison Committee on Livestock Movement;

During the past few years, movement of live animals from Florida into other States, largely because of the embargo, have been lifted by the U. S. Department of Agriculture as a result of progress in the Southwest in eradicating this destructive parasite of livestock.

With the embargo lifted, shipping requirements for livestock moving from California, New Mexico, and Arizona into the Southwest eradication area will now apply on a year-round basis, rather than on a 7-month basis, because a recent survey has confirmed that the embargo was overthrown in these three Western States. Year-round regulation will continue to apply to livestock movements from Texas and Louisiana into the Southwest eradication area, which includes Florida, Georgia, Alabama, South Carolina, and Mississippi.

Full-scale eradication efforts that involved the release of millions of baited animals commenced over the Southwest were begun in July 1958. Regulations regarding livestock movement first became effective in September 1958 to prevent interstate spread of the pest and to facilitate the Federal-State program then underway in the Southwest to eradicate the parasite.

The regulations specify that no livestock infected with screwworm shall be moved interstate for any purpose. Livestock owners who intend to ship animals into the eradication area should contact their State or Federal veterinarian for details regarding requirements for shipment.

The issue of interstate livestock movement has been reported in Florida since mid-June 1958. Prior to the beginning of the cooperative eradication program in July 1958, as many as 50,000 cases of screwworm were reported in Florida, South Carolina, Georgia, and Alabama. Interagency coordination facilities at Georgia, Florida, and Alabama provided an operational basis for the eradication effort, ceased operation in mid-November and are now on a standby basis. However, program officials urge livestock owners to continue to submit suspected larvae specimens for identification at the Bureau of Entomology and Plant Quarantine as being.

Details on the requirements for regulations regarding the interstate movement of livestock from non-eradicated areas appeared in the Dec. 9 Federal Register.